

INTERNATIONAL SEARCH REPORT

PCT/IB 03/06162

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F01N5/02 F02G5/02 H01L35/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F01N F02G H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 09, 30 July 1999 (1999-07-30) & JP 11 122960 A (CALSONIC CORP; NISSAN MOTOR CO LTD), 30 April 1999 (1999-04-30)	1, 2, 4
Y	paragraph '0015! - paragraph '0063!;	3, 8, 9
A	figures 1, 2	6, 13
Y	---	3, 8, 9
	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 05, 31 May 1999 (1999-05-31) & JP 11 036981 A (NISSAN MOTOR CO LTD; CALSONIC CORP), 9 February 1999 (1999-02-09) cited in the application	
A	figures 3, 4, 13	1, 2, 5

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

20 April 2004

Date of mailing of the international search report

03/05/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 917 144 A (GYOTEN HISAAKI ET AL) 29 June 1999 (1999-06-29) column 5, line 9 -column 14, line 27; figures 1-16 -----	1,2
A	FR 2 512 499 A (CARABETIAN CHARLES) 11 March 1983 (1983-03-11) page 3, line 29 -page 10, line 10; figure 4 -----	1,2,5,7

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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
JP 11122960	A	30-04-1999	NONE		
JP 11036981	A	09-02-1999	NONE		
US 5917144	A	29-06-1999	JP	9329058 A	22-12-1997
			EP	0813253 A2	17-12-1997
FR 2512499	A	11-03-1983	FR	2512499 A1	11-03-1983